

Work Order ID 67019

Thursday, March 03, 2011 11:54:01 AM



Page 1

Item ID: D3315-4

Accept



Setup Start



Revision ID:

Item Name: Wearplate

Stop



Start Date: 3/3/2011

Start Qty: 4.00



Cust Item ID:

Required Date: 3/7/2011

Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan: *M*

Date: 11-03-3

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D3315 | Rev B |

100

0.00



FLOW WATER JET

Waterjet

FLOW CNC Waterjet

1010 .063

Memo

1-Cut as per Dwg D3315 Dwg Rev: *S* Prog Rev: *B* 2-
Deburr if necessary

B 11-3-7

110

QC2- Inspect parts off machine FAI/FAIB

0.00

QC

Quality Control

Memo

0.00

B 11-3-7

120

QC8- Inspect parts - second check

0.00

QC

Quality Control

Memo

0.00

J 1103/08

(44)

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Work Order ID 67019

Thursday, March 03, 2011 11:54:01 AM



Page 2

Item ID: D3315-4

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Revision ID:

Item Name: Wearplate

Stop



Start Date: 3/3/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 3/7/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

130

Operation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept

Qty

Reject
QtyReject
NumberInsp.
Stamp

Brake NC

NC BRAKE

0.00

(4)

Brake NC

Memo

0.00

140



QC6- Inspect dimensions to drawing

0.00

3/10/09

QC

Memo

0.00

(X4)

Quality Control

150



Large Fab

0.00

(X4)

Large Fab

Memo

0.00

(X4)

Weld hard surface using D3315-4T3 as per QSI 004 and Dwg D3315 Rev:

(Signature) Qty Part Number Description Batch A/R
N/A 7560 Hardcoat Rod M116772

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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NOTE: Date & initial all entries

Work Order ID 67019

Thursday, March 03, 2011 11:54:01 AM



Page 3

Item ID: D3315-4

Accept



Setup Start



Revision ID:

Item Name: Wearplate

Stop



Start Date: 3/3/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 3/7/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC10- Inspect visual per QSI004- ground welds

0.00

0.00

S 03/14



QC

Memo

Quality Control

170

QC5- Inspect part completeness to step on W/O

0.00

0.00

S 03/14



QC

Memo

Quality Control

180

Grey Sandtex(Ref.4.3.5.6) per QSI005 4.3

0.00

0.00

M 15/08

H B 11-3-5.



Powdercoat

Powder Coating

Memo

START TIME:

3:15

OVEN TEMPERATURE:

FINISH TIME:

3:45

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 67019

Page 4

Thursday, March 03, 2011 11:54:01 AM

Item ID: D3315-4

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Item Name: Wearplate

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Start Date: 3/3/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 3/7/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190



QC3- Inspect Part Finish

0.00

4 / 1 / 16 / 03 / 16

QC

Memo

0.00

Quality Control

200



Packaging

0.00

11/3/16 4:20

Packaging

Memo

0.00

Packaging

Identify on inside surface using a permanent fine point marker with the following:
 TCCA-PDA, Dart Aerospace Ltd. P/N: D3315-4, B/N:
 BXXXXXX For Product Eligibility see PDA04-17 and
 Stock Location: 776

210



QC21- Final Inspection - Work Order Release

0.00

11/3/16 9:00

QC

Memo

0.00

Quality Control

MF
11-03-16

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Thursday, March 03, 2011 11:54:07 AM

Page 1

Work Order ID: 67019



Parent Item: D3315-4



Parent Item Name: Wearplate

Start Date: 3/3/2011

Required Date: 3/7/2011

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP: A□05.05.12□New issue□KJ/JLM□

IPP Rev:B As per Rev B 06-03-24 JLM

IPP Rev:C Now on Waterjet 07-07-11 JLM

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|--|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M1010S16GA 1010/1025 sheet 16GA | | Purchased | | No | | 100 | sf | 81.1250 | 2.296 | 9.667368 | | BIL 3-7 | |

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| MAT | 81 | |
| 116791 | 81 | |
| MAT19 | 0.125 | |
| 111410 | 0.125 | |

(4)

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

| | | |
|------------------------|--------------|-------------|
| DART AEROSPACE LTD | Work Order: | 6709 |
| Description: Wearplate | Part Number: | D3315-4 |
| Inspection Dwg: D3315 | Rev: B | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

| | | | | | |
|--------------|--------|-------------|----------|---------------------|-----|
| Measured by: | BB | Audited by: | D | Prototype Approval: | N/A |
| Date: | 11-3-7 | Date: | 11/03/08 | Date: | N/A |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A | 07.10.09 | New Issue | KJ/EC/DD | E |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

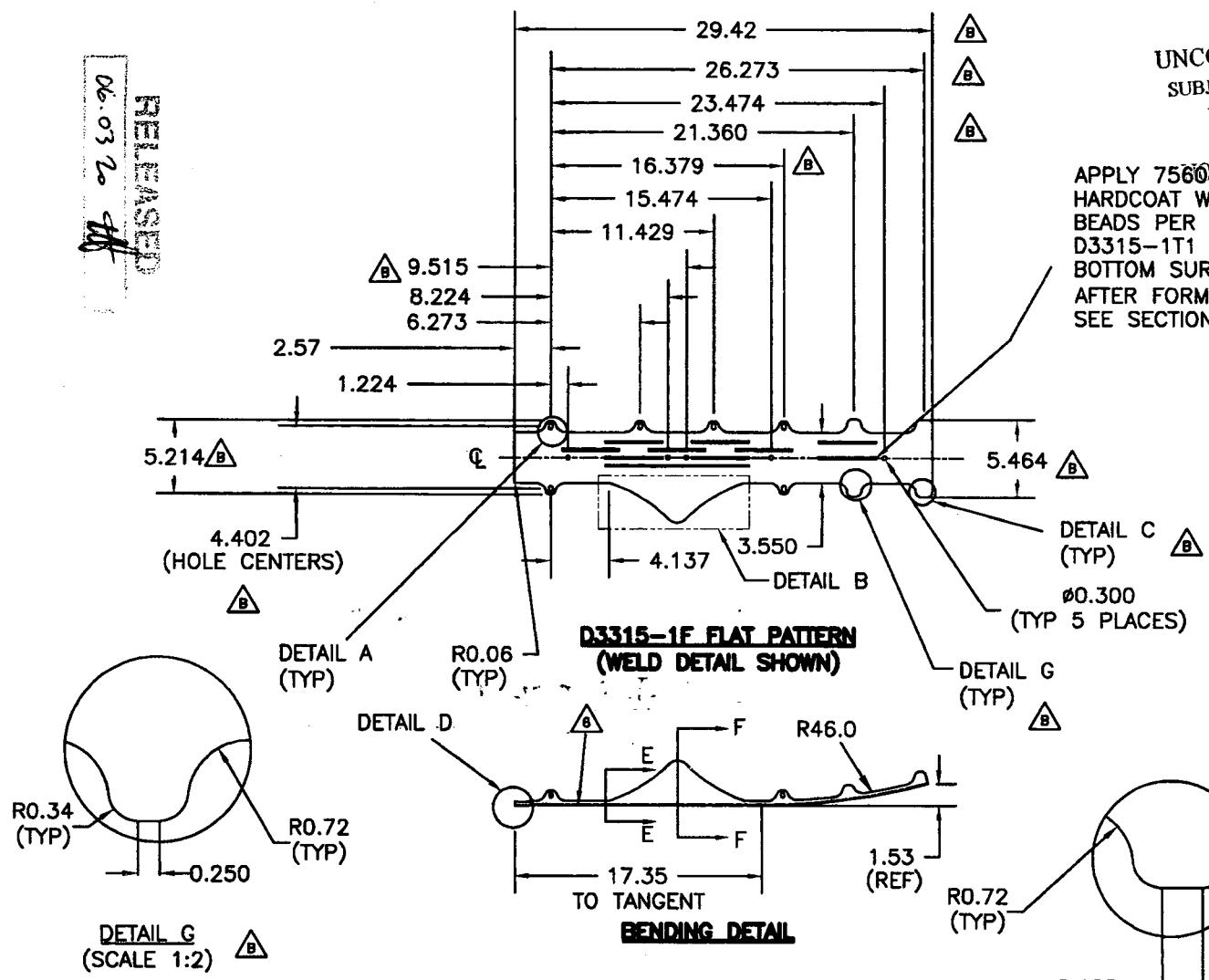
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NOTE: Date & initial all entries

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06.03.20
fff



D3315-1 WEARPLATE SHOWN (-2 OPPOSITE)

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,
38W/44W/50W/60W/70W SERIES STEEL 16 GAUGE (0.060 THICK)
 - 2) FINISH: POWDER COAT GREY SANDTEX (REF.4.3.5.6) PER DART QSI 005 4.3
 - 3) WELD PER DART QSI 004
 - 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 5) ALL DIMENSIONS ARE IN INCHES
 - 6) IDENTIFY ON INSIDE SURFACE AS INDICATED
"TCCA-PDA, DART AEROSPACE LTD., P/N D3315-X
B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-17"

SHOP COPY
RETURN TO
ENGINEERING
CONTROLLED COPY
JECT TO AMENDMENT

APPLY 7560. *61019*
HARDCOAT WELD
BEADS PER
D3315-1T1 ON
BOTTOM SURFACE
AFTER FORMING (TYP),
SEE SECTION E-E



| | | | |
|--|-----------|-------------------|--------------|
| DESIGN | | DRAWN BY | |
| <i>P.H.</i> | | <i>P.H.</i> | |
| DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | | | |
| CHECKED | APPROVED | DRAWING NO. | REV. B |
| <i>H</i> | <i>H</i> | D3315 | SHEET 1 OF 4 |
| DATE | TITLE | SCALE | |
| 06.01.31 | WEARPLATE | 1:12 | |
| A | 04.09.10 | NEW ISSUE | |
| B | 06.01.31 | UPDATE DIMENSIONS | |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

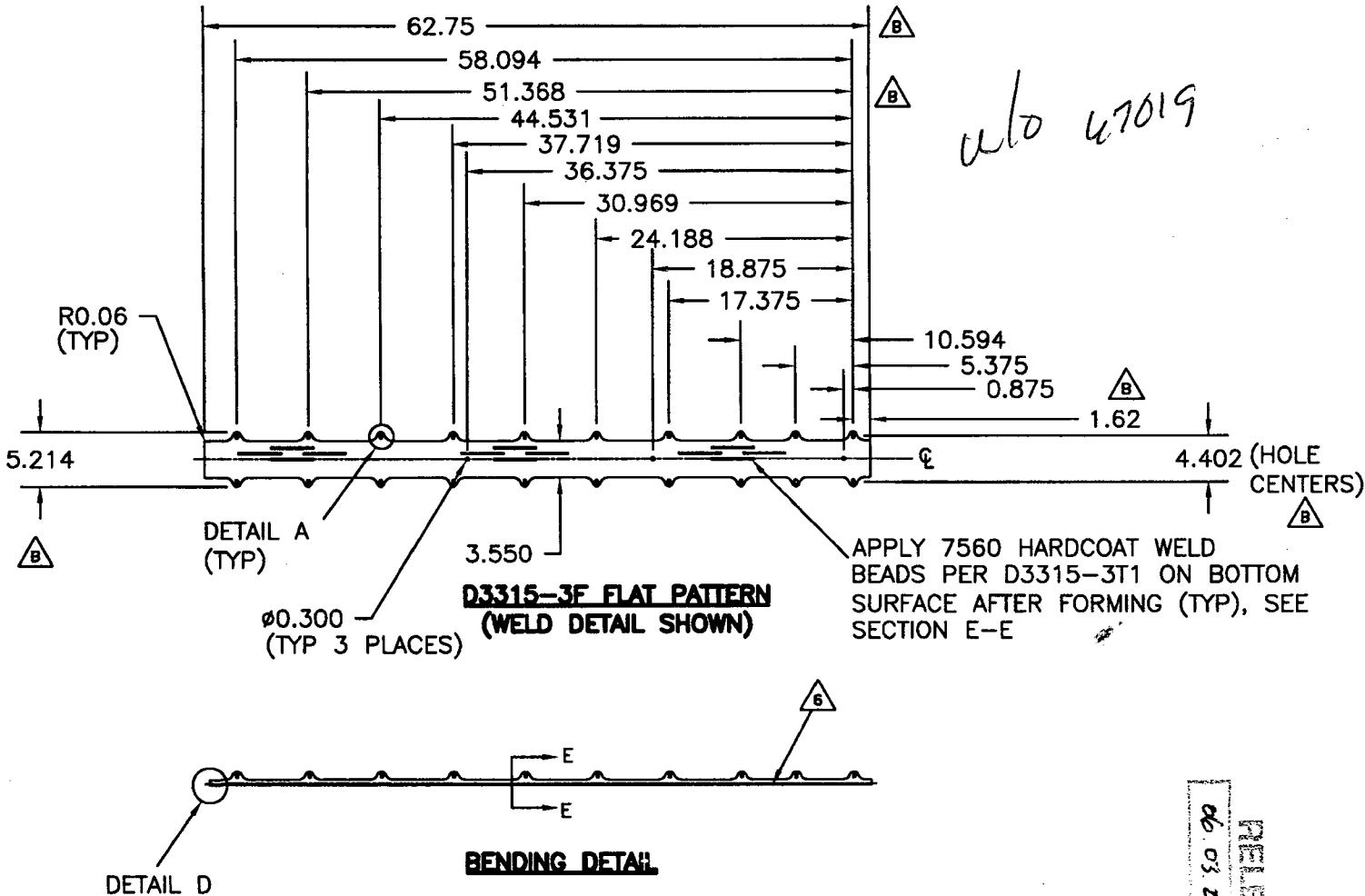
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
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| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

DART

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|----------|-----|-------------|-----------|-------------------------------|
| DESIGN | P/H | DRAWN BY | P/H | DART AEROSPACE LTD |
| CHECKED | | APPROVED | | HAWKESBURY, ONTARIO, CANADA |
| DATE | | DRAWING NO. | D3315 | REV. B |
| 06.01.31 | | TITLE | WEARPLATE | SHEET 2 OF 4 1:16 SCALE |



D3315-3 WEARPLATE SHOWN (-4 OPPOSITE)

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 16 GAUGE (0.060 THICK)
- 2) FINISH: POWDER COAT GREY SANTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) WELD PER DART QSI 004
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) IDENTIFY ON INSIDE SURFACE AS INDICATED
"TCCA-PDA, DART AEROSPACE LTD., P/N D3315-X
B/N BXxxxx, FOR PRODUCT ELIGIBILITY SEE PDA05-17"

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

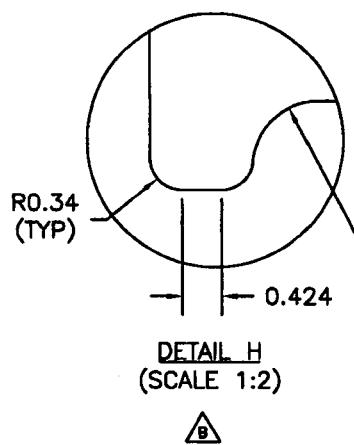
| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

DART

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|------------------------------|-------------------------------|-----------------------------|--------|
| DESIGN <i>P/H</i> | DRAWN BY <i>P/H</i> | DART AEROSPACE LTD | |
| CHECKED <i>[initials]</i> | APPROVED <i>[initials]</i> | HAWKESBURY, ONTARIO, CANADA | |
| DATE 06.01.31 | | DRAWING NO. D3315 | REV. B |
| TITLE WEARPLATE | | SHEET 3 OF 4 | |
| | | SCALE 1:12 | |

06 03 20
[initials]



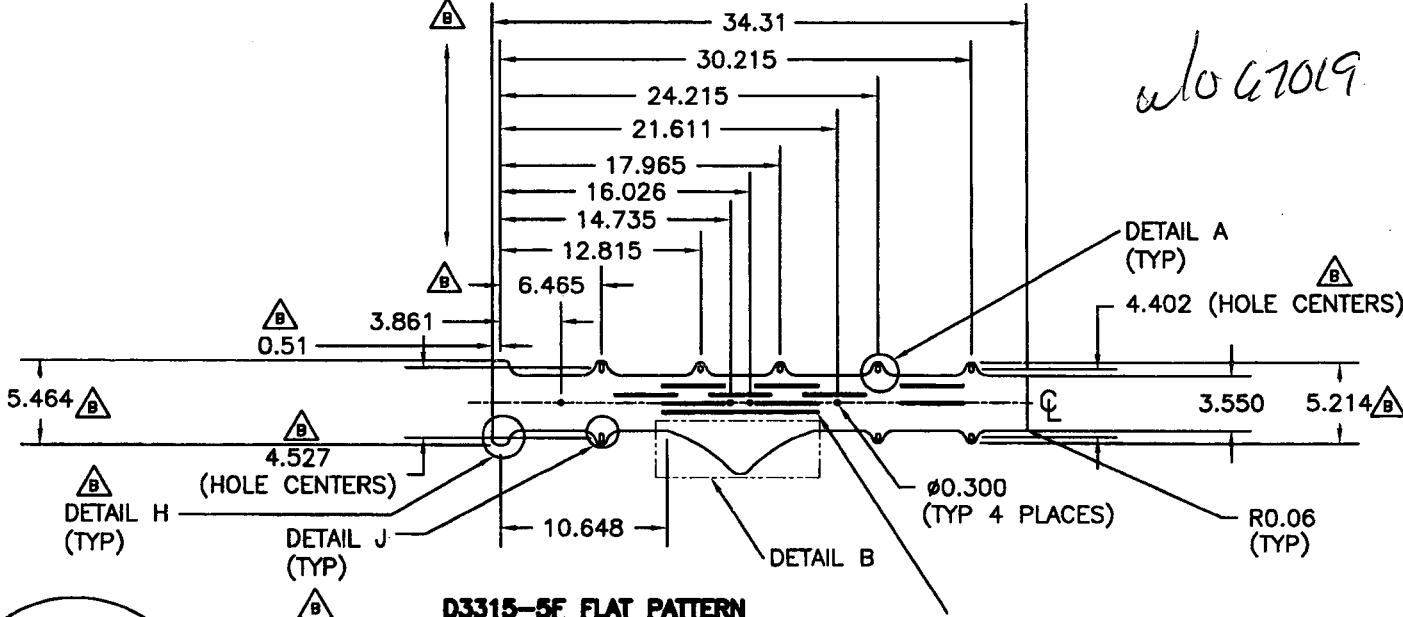
R0.34
(TYP)

R0.72
(TYP)

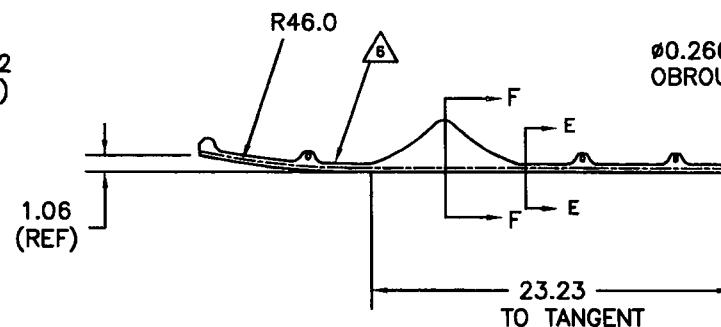
DETAIL H
(SCALE 1:2)

B

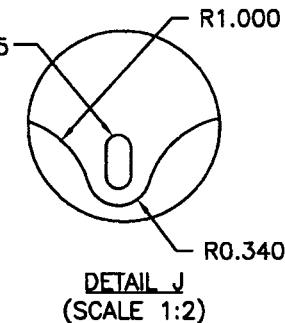
**D3315-5F FLAT PATTERN
(WELD DETAIL SHOWN)**



APPLY 7560 HARDCOAT WELD
BEADS PER D3315-5T1 ON BOTTOM SURFACE
AFTER FORMING (TYP), SEE SECTION E-E



BENDING DETAIL



R1.000
R0.340
DETAIL J
(SCALE 1:2)

D3315-5 WEARPLATE SHOWN (-6 OPPOSITE)

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 16 GAUGE (0.060 THICK)
- 2) FINISH: POWDER COAT GREY SANTEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) WELD PER DART QSI 004
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSION ARE IN INCHES
- 6) IDENTIFY ON INSIDE SURFACE AS INDICATED

"TCCA-PDA, DART AEROSPACE LTD., P/N D3315-X
B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-17"

| W/O: | | WORK ORDER CHANGES | | | | | |
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| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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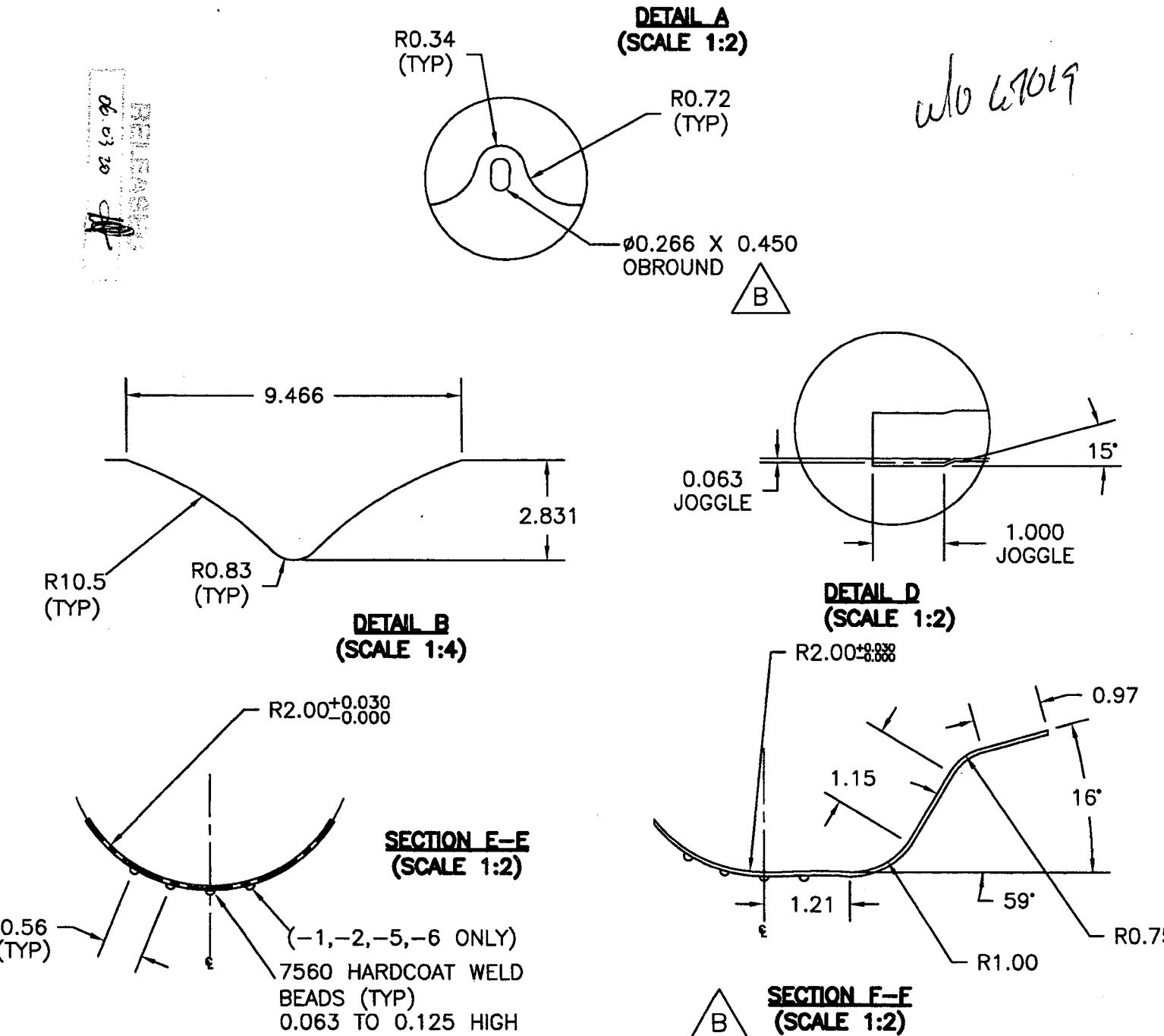
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NOTE: Date & initial all entries

DART

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| DESIGN PH | DRAWN BY PH | DART AEROSPACE LTD | |
| CHECKED <i>[Signature]</i> | APPROVED <i>[Signature]</i> | DRAWING NO. D3315 | HAWKESBURY, ONTARIO, CANADA |
| DATE 06.01.31 | TITLE WEARPLATE | SHEET 4 OF 4 | REV. B |
| SCALE NTS | SCALE NTS | SCALE NTS | SCALE NTS |



| W/O: | | WORK ORDER CHANGES | | | | | |
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